



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,196	01/29/2001	Masashi Sato	106872	6868

25944 7590 06/03/2003

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
----------

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 06/03/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-15

# Office Action Summary

Application No.

09/770,196

Applicant(s)

SATO ET AL.

Examiner

Camie S Thompson

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 20, 2003 has been entered.
2. Examiner acknowledges amended claim 9 and newly added claims 15-19.
3. The rejection of claims 9-14 under 35 U.S.C. 112, second paragraph is withdrawn due to applicant's argument.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al., U.S. Patent Number 4,722,959 in view of EP 0273516.

Inoue disclose a flame retardant olefin polymer composition that can be used to provide insulation for electrical wires as per instant claims 9, 15 and 18-19 (see abstract and column 2, lines 8-11). Inoue also discloses that the resin composition comprises 60% to 90% ethylene- $\alpha$ -

Art Unit: 1774

olefin copolymer wherein the  $\alpha$ -olefin is propylene wherein the melt index is within the range of 0.05 to 50 grams per 10 minutes as per instant claims 9, 13-15 and 18-19 (see column 2, lines 33-41 and column 5, lines 65-68). In addition, Inoue discloses magnesium that is surface treated with an aminosilane and is in the amount of 20 to 200 parts by weight, preferably 40 to 150 parts by weight, based on 100 parts by weight of resin as per instant claims 9, 10 and 12 (see column 2, lines 45-59 and column 8, lines 63-66). Additionally, Inoue discloses that the resin composition comprises 5% to 20% by weight styrene-butadiene rubber modified with 0.05%-10% maleic anhydride as per instant claims 9-11, 15 and 18-19 (see column 7, lines 34-60). In column 1, line 67-column 2, line 7, Inoue discloses a non-environmental pollution type flame retardant composition having a higher flame retardance in which mechanical strength and workability are flexible and does not generate any harmful gas. The addition of a halogen would render the flame retardant composition of the Inoue reference an environmental pollutant. Therefore, Inoue does not use a halogenated flame retardant composition as per instant claims 15-17. Although Inoue discloses an olefin polymer modified with an unsaturated carboxylic acid, the reference does not distinctly point out that the polymer is propylene as per instant claims 9, 10 and 11. The European reference 0273516 teaches a flame retardant insulation composition for wire and cable comprising 5% to 40% by weight of a hydrogenated monoalkenylarene conjugated diene, a block copolymer that is propylene and at least 1 percent of the propylene has been functionalized with an acid anhydride such as maleic anhydride and an inorganic filler such as magnesium hydroxide that has been surface treated with a coupling agent as per instant claims 9-12 (see pages 2-4). The EP reference may also contain mineral, which is not a resin (see page 5, lines 6-10). It would have been obvious to one of ordinary skill in the art

Art Unit: 1774

to use a modified block copolymer of the European reference with the resin composition of Inoue because it is known that these blends can be greatly enhanced by the incorporation of hydrogenated monoalkenyl arene-conjugated block copolymers and that these blends are relatively easy to process, have good flame retardancy and give a low production of toxic and corrosive gases when burned as shown by the European reference on page 2, lines 33-40.

### ***Response to Arguments***

6. Applicant's arguments filed March 20, 2003 have been fully considered but they are not persuasive. Applicant argues that the Inoue reference fails to teach any of the components (a), (b) or (c) of the present claimed invention and that the EP 0273516 reference fails to overcome the deficiencies of the Inoue reference. Inoue teaches an ethylene-alpha-olefin copolymer wherein the alpha olefin can be propylene. Applicant argues that Inoue reference does not teach at least 50% by weight propylene content in the composition. Inoue teaches a 5-40% mole percent of the alpha olefin. Although Inoue does not specifically teach at least 50% of propylene content, applicant must show criticalities of the amount of the propylene. Applicant has not shown evidence of how the 50% content of propylene makes the instantly claimed invention distinct and different from the prior art. Additionally, applicant states that the propylene content can vary. Applicant argues that polypropylene is not specifically taught as component (b) in the Inoue reference. In column 7, lines 27-32, Inoue discloses that polypropylene is one of the compounds particularly preferred. Applicant also argues that the Inoue reference does not specifically teach the use of maleic anhydride as the unsaturated carboxylic acid. In column 7, lines 49-52, Inoue discloses that maleic anhydride is most preferable. Applicant argues that the

Art Unit: 1774

Inoue reference does not specifically teach 5-60 parts by weight of styrene-based polymeric elastomer modified with 0.1-10% by weight of an acid anhydride. Inoue discloses in column 7, lines 34-47 that a styrene-butadiene rubber that can be used with a modified olefin wherein the preferred unsaturated carboxylic acid is maleic anhydride. Applicant argues that the EP 0273516 reference fails to overcome the deficiencies of the Inoue reference regarding the polymer being propylene. The European reference teaches a flame retardant insulation composition for wire and cable, as does the Inoue reference. The European reference teaches a styrene-based elastomer modified with 1.3 weight percent of maleic anhydride (see Examples of European reference). Both references are flame retardant compositions. In combining the Inoue reference with the European reference, a composition with good flame retardancy and low production of toxic and corrosive gases is obtained, which provides motivation for combining the references. Additionally, applicant argues that Inoue fails to teach that halogen compounds should be omitted. Inoue discloses a non-environmental pollution type flame retardant composition. Halogens are known to generate pollutants and harmful gases. However, Inoue has a composition that does not generate pollutants or harmful gases, thus making the composition halogen free. Inoue discloses that to obtain a higher flame retardance than V-1 or V-0, a halogen compound can be used. However, it is not necessary to add a halogen unless a higher rating is desired.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (703) 305-4488. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia

Application/Control Number: 09/770,196

Page 6

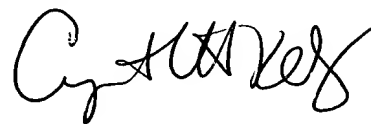
Art Unit: 1774

H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the Group are (703) 872-9310 {before finals} and (703) 872-9311 {after finals}.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is

(703) 308-0661.

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', is written over the typed name and title.